Technical Manual

<App Name>

<PythonAPlus Group>

ICTPRG405 Automate processes [52030]

Group Project Task

**Note!!! Everything in red is a comment or placeholder, and MUST be deleted or replaced.**

**You should also delete sections that are not appropriate to your project.**

Date : 26 Nov 2019

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Prepared by : Group PythonAPlus

Distribution : Mr Akhtar Jalbani – Lecturer and Director PMO

# Introduction

## Document Identification

This document describes the design of <your app name> and is part of the PythonAPlus Group project assessment.

## System Overview

A brief statement (not more than 3-4 lines) on the purpose of the software system or subsystem/app.

Include: name of your app, what platform it will work on(windows or unix/linux),and how it benefits in achieving the main goal of home automation.

## Document Overview

A short “road map” of the document, to provide an orientation for the reader. Summarise the purpose and contents of this document (in not more than 4-5 lines).

### Acronyms and Abbreviations

(Please enter all the Acronyms and abbreviations in the table below)

Table 1-1 lists the acronyms and abbreviations used in this document.

Table -: Acronyms and Abbreviations.

|  |  |
| --- | --- |
| **Acronym** | **Meaning** |
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# Software Design/Requirements

## Software Design Process

How you went about designing the software – top down, bottom up, OOD, functional view, etc.

<we can write briefly the SDLC information we cover in the lectures>

### Software Development Environment

The tools that were used, both software (, IDEs, compilers, assemblers, etc) and hardware (development boards, etc.).

### Software Implementation Stages and Test Plans

Describe the way we went about implementing/developing the software - staged implementation, pseudocode (PDL), flow charting, any unit testing procedures, integration testing, etc. Identify dependencies – e.g this had to be done before that, etc.

## Software Quality Assurance

Describe any measures that were taken to control (improve) the software quality – code or documentation standards, code walkthroughs, testing and validation, etc.

## Software Design Description

### Architecture

Describe the high-level architecture of the software – that is, the top-level flow of control, and how the various functional modules communicate.

In this section, you can put state transition diagrams, sequence diagrams, etc.

### Software Interface

Describe the public interface of each software module.

### Software Components

< Walk through the lines of codes in functions or modules and state what exactly each line does> This is a detailed view of the internal workings of each of the software modules.

## Preconditions for Software (if any)

### Preconditions for System Startup

Describe any preconditions that must be satisfied before the system can be started.

### Preconditions for System Shutdown

Describe any preconditions that must be satisfied before the system can be stopped.

# System Deliverables

### State of the System as Delivered

A statement of your group’s opinion of the conformance of the system with the specification.

### Future Improvements

Present a prioritised list of improvements to be made in future releases, giving reasons for the improvement and priority rank.

# Safety Implications

By law (*Occupational Health and Safety Act and Safety Regulations)* all employees who design plant, machinery or equipment must identify foreseeable safety hazards associated with the equipment, and then assess and control the identified risks.

<It appears that this law does not apply directly to APlus Project designs but if you notice any hazard in working and developing your software development and implementation you should list it here.

# Conclusions

**Appendix A: Title**

**A.1. Subtitle**

Appendices are used for any material that is not included in the main part of the report, usually because it would be distracting to the reader.

You would normally include **data sheets, techniques or classes used or libraries imported**.

**Any Supporting calculations** should also go in an appendix.

Please do place your **code listings** in the following 2-column section. Make sure to use a non-proportional (mono-spaced, or “typewriter”) font, such as Courier New or Andale Mono <are they a usual standard??? I noticed them at work> .

Place code listings here, using style “Code Appendix” The column width will fit approximately 88 characters per column.

Each file should start on a new page, or at least at the top of a new column.